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[57] **ABSTRACT**

Remote file transfer applications often involve a situation where a receiving computer (22) contains a reference file (48) that may be similar, or perhaps even identical to, a source file (46) to be transmitted by a sending computer (20). Disclosed is a file transfer method that identifies and isolates the differences between the two files, and transmits only those differences to the receiving computer. The method divides the data in the reference file into a plurality of blocks and associates each block of data with a key value. The key values are then sent to the sending computer in the form of an array. At the sending computer, a block of data at the source file is identified, its key value computed, and the key value is then compared to the keys in the array. If a match is found, an indication of such is sent to the receiving computer. Otherwise, a byte of data from the data block is sent to the receiving computer, and a subsequent block of data is identified and analyzed. The latter steps of the method are repeated until a representation of the source file is present at the receiving computer.

32 Claims, 8 Drawing Sheets

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